REMARKS/ARGUMENTS

Upon entry of the amendments, claims 1-12, 15-17, 19 and 20 are pending. Claims 13 and 14 remain canceled. Claims 2-5 and 18 are withdrawn pursuant to the Restriction Requirement. Claims 1-11 and 15 have been amended. Support for the amendments to claims 1 and 6 is found in the originally filed claim 1. Support for the amendment to claim 11 is found on pages 17-18, paragraphs [0069] and [0070] of the specification. Support for the amendment to claim 15 is found on page 21, paragraph [0090] of the specification. Support for the amendments made to claims 2-5, 7-10 are formalistic in nature and, thus, no new matter has been introduced. Claim 20 is a newly added claim drawn to compounds listed in Table 1. Reconsideration of the rejected claims is respectfully requested.

I. Rejection of Claims 1, 6-12 and 15-19 under 35 U.S.C. § 112, Second Paragraph

Claims 1, 6-12 and 15-19 have been rejected under 35 U.S.C § 112, second paragraph as allegedly being indefinite. In response, Applicants have amended claims 1, 6-12 and 15 and canceled claim 18. Specifically, claims 1, 4, 5 and 7-10 have been amended to delete the word "any" and to add the word "the"; claims 2-10 have been amended to change the word "compounds" to "compound"; and claim 18 has been withdrawn. In view of the amendments, Applicants believe that claims 1, 6-12 and 15-19 are definite.

In addition, the Examiner has objected to claim 8 as being improperly dependent from claim 1 for reciting "naphthyl group". Applicants respectfully direct the Examiner's attention to the definition of C_{6-10}aryl-C_{0-4}alkyl in claim 1, wherein the aryl group is recited. Therefore, claim 8 is a proper dependent claim. Accordingly, Applicants respectfully request that the rejection of claims 1, 6-12 and 15-19 under 35 U.S.C. § 112, second paragraph, be withdrawn.

II. Rejection of Claims 1, 6-12 and 15-19 under 35 U.S.C. § 112, First Paragraph

Claims 1, 6-12 and 15-19 have been rejected under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement for a solvate or a hydrate. Without acquiescing to

the rejection, and in the interest of furthering prosecution, Applicants have amended claim 1. In view of the amendments, Applicants believe that the rejection is overcome. Accordingly, Applicants respectfully request that the enablement rejection of claims 1, 6-12 and 15-19 be withdrawn.

III. Rejection of Claims 11 and 15-16 under 35 U.S.C. § 112, First Paragraph

Claims 11 and 15-16 have been rejected under 35 U.S.C. § 112, first paragraph, as allegedly lacking enablement for treating tumoral disease and inhibiting Bcr-abl with any compound. Without acquiescing to the rejection, and in the interest of furthering prosecution, Applicants have amended claim 11 and 15. In view of the amendments, Applicants believe that the Examiner's concern is addressed. Accordingly, Applicants respectfully request that the enablement rejection of claims 11 and 15-16 be withdrawn.

IV. Rejection of Claims 1, 6-8, 11 and 18 under 35 U.S.C. § 102(b) over Ikeda

Claims 1, 6-8, 11 and 18 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 4,849,424 (hereinafter "Ikeda"). To the extent that the rejection is applicable to the amended set of claims, Applicants respectfully traverse the rejection.

As set forth in MPEP § 2131, a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.

Claim 1 recites a compound of Formula I, which has two possible core structures, i.e., structure IA (X^1= -N= and X^2 = -CR^4=) and structure IB (X^1 = -CR^4= and X^2 = -N=):

IA

IB

In contrast, Ikeda discloses a compound having the formula:

wherein R^1 represents a pyrazolyl, imidazolyl, or triazolyl group, R^2 represents a hydrogen atom or lower alkyl group, R^3 represents a halo, amino, lower alkoxy, pyrazolyl, imidazolyl, triazolyl, piperidinyl, or aryloxy group, one of X or Y represents N and the other of X or Y represents CH, and the salts thereof. In view of the substituents set forth for X and Y, the Ikeda compound also has two possible core structures, i.e. Ikeda-A (X= N and Y = CH) and Ikeda-B (X= CH and Y = N):

Ikeda-A

Ikeda-B

Ikeda-A

Applicants submit that the compounds Ikeda-A do not anticipate the compounds of Formula IA or IB. The substituent R^1 of Ikeda-A corresponds to the substituent R^1 of Formula IA or R^2 of Formula IB. As set forth above, substituent R^1 of Ikeda-A can be a pyrazolyl, imidazolyl, or triazolyl group. In contrast, R^1 of Formula IA of the present invention is -$X^3NR^6R^7$ or -X^3OR^7. Therefore, the compounds Ikeda-A are ***structurally different*** from the compounds of Formula IA of the present invention, thus, do not anticipate the compounds of Formula IA of the present invention.

Moreover, the compounds Ikeda-A also fail to disclose R^1 can be hydrogen, amino, C_{1-4}alkoxy or halo-substituted C_{1-4}alkoxy, i.e., the substituents that are recited in R^2 of the compounds of Formula IB of the present invention. As a result, the compounds of Ikeda-A are also ***structurally different*** from the compounds of Formula IB. Hence, the compounds Ikeda-A do not anticipate the compounds of Formula IB of the present invention.

Ikeda-B

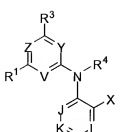
Applicants further submit that the compounds of Ikeda-B do not anticipate the compounds of either Formula IA or IB of the present invention. Substituent R^2 of Ikeda-B corresponds to substituent R^1 of Formula IA of the present invention. As set forth above, R^2 of Ikeda-B can be hydrogen or a lower alkyl. However, substituent R^2 of Ikeda-B ***cannot*** be $-X^3NR^6R^7$ or $-X^3OR^7$, the substituents that are recited for R^1 of Formula IA of the present invention. Therefore, the compounds of Ikeda-B do not anticipate the compounds of Formula IA of the present invention.

Moreover, the compounds of Formula IB are also novel over the compounds of Ikeda-B. Substituents R^1 and R^3 of Ikeda-B correspond to substituents R^1 and $-L-R^3$ of Formula IB of the present invention. Ikeda-B discloses that R^1 can be a pyrazolyl, imidazolyl, or triazolyl group and R^3 can be halo, amino, lower alkoxy, pyrazolyl, imidazolyl, triazolyl, piperidinyl, or aryloxy group. Amended claim 1 recites that R^1 can be $-X^3NR^6R^7$ or $-XC_{6\text{-}10}aryl$, R^3 can be $C_{3\text{-}8}heterocycloalkyl\text{-}C_{0\text{-}4}alkyl$, $C_{5\text{-}10}heteroaryl\text{-}C_{0\text{-}4}alkyl$ or $C_{6\text{-}10}aryl\text{-}C_{0\text{-}4}alkyl$, and L can be a bond or $-NR^5-$. Thus, substituents R^1 and R^3 of Ikeda-B do ***not*** overlap with substituents R^1 and $-L-R^3$ of Formula IB of the present invention. Therefore, the compounds of Ikeda-B do ***not*** anticipate the compounds of Formula IB of the present invention. Accordingly, Applicants respectfully request that the rejection of claims 1, 6-8, 11 and 18 under 35 U.S.C. § 102(b) over Ikeda be withdrawn.

V. Rejection of Claims 1, 6-8, 11 and 18 under 35 U.S.C. § 102(b) over Aldrich

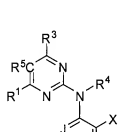
Claims 1, 6-8, 11 and 18 have been rejected under 35 U.S.C. § 102(b) as allegedly anticipated by U.S. Patent No. 6,342,503 (hereinafter "Aldrich"). To the extent that the rejection is applicable to the amended set of claims, Applicants respectfully traverse the rejection.

Aldrich discloses a compound having the general Formula (AId):

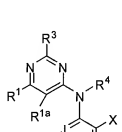


Ald

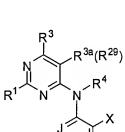
wherein: J, K and L are independently selected from the group consisting of N, CH and CX'; Y is CR^{3a}, CR^{29} or N; M is CR^5 or N; V is CR^{1a} or N; Z is CR^2 or N. Depending on the choice of Z, Y and V, the compounds of Formula Ald can have three possible pyrimidine structures: Ald-1 (Z= CR^5, V=Y= N), Ald-2 (V= CR^{1a}, Z = Y = N) and Ald-3 (Y = CR^{3a} or CR^{29}, Z = V = N) as follows.



Ald-1



Ald-2



Ald-3

Applicants submit that ***none*** of the compounds Ald-1, Ald-2 or Ald-3 ***anticipate*** the compounds of amended claim 1 for at least the reasons set forth below.

Ald-1

In the compounds of Formula Ald-1, substituent corresponds to R^1 of the compounds of Formula IA or to R^2 of the compounds of Formula IB of the present invention.

In substituent , R^4 is $(CH_2)_mOR^{16}$, $C_{1\text{-}4}$alkyl, allyl, propargyl, $(CH_2)_mR^{13}$, or -$(CH_2)_mOC(O)R^{16}$, wherein m is from 1-4, R^{13} is CN, OR^{19}, SR^{19} or $C_{3\text{-}6}$cycloalkyl and R^{16} is -H or $C_{1\text{-}6}$alkyl (see, columns 7 and 8 of Aldrich). In contrast, R^1 of Formula IA of the present

invention is $-X^3NR^6R^7$ or $-X^3OR^7$, wherein R^6 and R^7 are C_{6-10}aryl or C_{5-6}heteroaryl. In addition, R^2 of Formula IB of the present invention is hydrogen, halo, amino, C_{1-4}alkyl, halo-substituted C_{1-4}alkyl, C_{1-4}alkoxy and halo-substituted C_{1-4}alkoxy. Therefore, substituent  is ***structurally different*** from R^1 of Formula IA or R^2 of Formula IB of the present invention. Hence, the compounds of Formula Ald-1 do ***not*** anticipate the compounds of Formula IA or IB.

Ald-2

In the compounds of Formula Ald-2, substituents R^1 and  correspond to substituents R^2 and substituent $-L-R^3$ of Formula IA of the present invention. In addition, substituent R^3 of Formula Ald-2 corresponds to substituent R^2 of Formula IB of the present invention. Formula Ald-2 discloses that substituent R^1 of Formula Ald-2 can be C_{1-4}alkyl, C_{2-4}alkenyl, C_{2-4}alkynyl, halogen, C_{1-2}haloalkl, NR^6R^7, OR^8 or $S(O)_nR^8$. However, Formula Ald-2 does not disclose that substituent R^1 of Formula Ald-2 can be hydrogen, amino, alkoxy or haloalkoxy, the substituents that are recited for R^2 of Formula IA of amended claim 1. Therefore, the compounds of Formula Ald-2 do not anticipate the compounds of Formula IA.

The compounds of Formula Ald-2 are also ***structurally different*** from the compounds of Formula IB of the present invention with respect to the substituents at the 2-position of the pyrimidine ring. Formula Ald-2 discloses that R^3 can be C_{1-4}alkyl, aryl, C_{3-6}cycloalkyl, C_{1-2}haloalkyl, halogen, nitro, NR^6R^7, OR^8, $S(O)_nR^8$, $C(=O)R^9$, $C(=O)NR^6R^7$, $C(=S)NR^6R^7$, $-(CHR^{16})^kNR^6R^7$, $(CH_2)_kOR^8$, $C(=O)NR^{10}CH(R^{11}CO_2R^{12}$, $-C(OH)(R^{25})(R^{25a})$, $-(CH_2)_pS(O)_n$alkyl, $-(CHR^{16})R^{25}$, $-C(CN)(R^{25})(R^{16})$ provided that R^{25} is not ...etc. However, Formula Ald-2 does ***not*** disclose that R^3 can be hydrogen, amino, alkoxy or haloalkoxy as recited in R^2 of Formula IB of amended claim 1. Therefore, the compounds of Formula Ald-2 do ***not*** anticipate the compounds of Formula IB.

Ald-3

The compounds of Formula Ald-3 are also ***structurally different*** from the compounds of Formula IA or IB of the present invention. Substituent R^1 of Formula Ald-3

corresponds to substituent R^1 of Formula IA or substituent R^2 of Formula IB of the present invention. Formula Ald-3 discloses that substituent R^1 of Formula Ald-3 can be C_{1-4}alkyl, C_{2-4}alkenyl, C_{2-4}alkynyl, halogen, C_{1-2}haloalkl, NR^6R^7, OR^8 or $S(O)_nR^8$. However, Formula Ald-3 does ***not*** disclose that R^1 can be-$X^3NR^6R^7$ or X^3OR^7, wherein X^3 is C_{1-4}alkylene, the substituents that are recited for R^1 in amended claim 1 of the present invention. Formula Ald-3 also ***fails*** to disclose that R^1 can be hydrogen, amino, alkoxy or haloalkoxy, the substituents that are recited for R^2 in amended claim 1. Therefore, the compounds of Formula Ald-3 do not anticipate the compounds of Formula IA or IB of the present invention. In view of the foregoing, Applicants respectfully request that the rejection of claims 1, 6-8, 11 and 18 under 35 U.S.C. § 102(b) over Aldrich be withdrawn.

VI. Rejection of Claims 1, 6-8, 11 and 17 under 35 U.S.C. § 103(a) over Ikeda

Claims 1, 6-8, 11 and 17 have been rejected as allegedly being obvious over Ikeda. To the extent that the rejection is applicable to the amended set of claims, Applicants respectfully traverse the rejection.

As discussed in section V above, amended claims 1, 6-8, 11 and 17 are novel over the compounds of Ikeda. The compounds of the present invention are ***structurally different*** from those disclosed in Ikeda and none of the compounds of Ikeda are embraced in the presently claimed compounds of Formula I of claim 1. In addition, there are no teachings or suggestions in Ikeda to modify the compounds of Ikeda to arrive at the compounds of the presently claimed invention. Accordingly, Applicants respectfully request the rejection of claims 1, 6-8, 11 and 17 under 35 U.S.C. § 103(a) over Ikeda be withdrawn.

VII. Rejection of Claims 1, 6-8, 11 and 17 under 35 U.S.C. § 103(a) over Aldrich

Claims 1, 6-8, 11 and 17 have been rejected as allegedly being obvious over Aldrich. To the extent that the rejection is applicable to the amended set of claims, Applicants respectfully traverse the rejection.

As discussed in section V above, amended claims 1, 6-8, 11 and 17 are novel over the compounds of Aldrich. The compounds of the present invention are ***structurally different***

from those disclosed in Aldrich and none of the compounds of Aldrich are embraced in the presently claimed compounds of Formula I of claim 1. In addition, there are no teachings or suggestions in Aldrich to modify the compounds of Aldrich to arrive at the compounds of the presently claimed invention. Accordingly, Applicants respectfully request the rejection of claims 1, 6-8, 11 and 17 under 35 U.S.C. § 103(a) over Aldrich be withdrawn.

VIII. Double Patenting Rejection

Claims 1, 6-12 and 15-19 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as allegedly being obvious over claims 57-72 of copending Application No. 10/270,030. Applicants respectfully request that this provisional rejection be held in abeyance until the present subject matter is found allowable. Should the Examiner feel that the amended claims remain subject to the provisional rejection, Applicants will file a terminal disclaimer.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 925-472-5000.

Respectfully submitted,

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